GATO™

WW II GATO-Class Submarine Simulation

Spectrum HoloByte™

GATO™

CLASS SUBMARINE

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The following pages will serve you as the captain's manual of operations, tactics, and strategy, if you wish. However, you may choose a more daring "sink or sail" method of exploring GATO at first, by using the command list on the next page and setting out on trial and error runs in the patrol area, where many surprising discoveries await you!

INSTALLATION INSTRUCTIONS
for the IBM PC/jr/XT and compatibles.

THE ENCLOSED WARRANTY/REGISTRATION CARD MUST BE RETURNED TO SPECTRUM HOLOBYTE AS SOON AS POSSIBLE TO ENSURE REPLACEMENT OF DEFECTIVE MATERIALS AND RECEIPT OF UPDATE INFORMATION. (Spectrum HoloByte, 2061 Challenger Dr., Alameda, CA 94501, U. S. A.)

We have created this manual with the idea that experience is the best teacher, and that many of you will want to spend time playing the game instead of reading documentation. However, to get a full appreciation of the many facets of GATO, we recommend reading the manual in its entirety once you have mastered the fundamentals of beginning the game and operating your submarine, the Growler. Many questions may come up during play that, we hope, will be answered to your satisfaction in this manual.

To learn how to use your GATO program, it is recommended that you be familiar with some simple functions of your computer (e.g., booting up programs, keyboard layout, and calling up files). Refer to your computer owner's guide to learn the various functions of your system.

Please follow the installation instructions below for beginning the game.

1. Do not put a write-protect tab on the disk. Gato is an interactive program and must occasionally write to disk.
2. Caps Lock key must be down (or "on").
3. Place DOS 1.1 or later (MS-DOS or PC-DOS) into drive A and "boot," (i.e., turn the computer on, or if the computer is already on, press the **CTRL, ALT,** and **DEL** keys simultaneously).
4. At the **A>**, insert GATO into drive A.
5. Type **GATO**, then press **return** or **Enter**.

The Command List, on page 3, lists the keyboard commands as they would appear on the IBM PC keyboard (i.e., Function Keys and Numeric Keypad keys). The PCjr keyboard is laid out differently, but uses the same keys as the IBM PC.

Transferring the DOS System Onto the GATO Disk

You can transfer the system to your *backup* GATO disk in order to boot with the GATO disk instead of DOS. This procedure is optional.

Note: Only DOS 1.10, 2.00, and 2.10 will transfer. Using any other DOS will result in overwriting the GATO disk and losing game files. Before transferring the system, it will be necessary to delete the DEMO.EXE file from the disk. If this is not done, there will not be enough room on the disk to load the COMMAND.COM file. The demonstration is used mainly to give you a brief overview of GATO and is not needed during game play. Once the DEMO.EXE file is deleted, do not select #2 (Demonstration) from the menu or else the program will exit back to the system.

To transfer DOS for a one-drive system:

1. Insert your DOS disk into the drive, and turn on the computer.
2. Type **SYS B:** at the **A>**.
3. Following the prompts onscreen, insert the backup GATO disk as the diskette for drive B and the DOS disk as the diskette for drive A.
4. Continue swapping disks until the message "System transferred" appears and the **A>** returns.
5. With the backup GATO disk in the drive, type **ERASE DEMO.EXE**.
6. With the DOS disk in the drive, type **COPY COMMAND.COM B:** at the **A>** and follow the instructions in #3.
7. Continue swapping disks until the message "1 File(s) copied" appears.

To transfer DOS for a two-drive system:

1. Insert your DOS disk into drive A and your backup GATO disk in drive B, and turn on the computer.
3. Type **SYS B:** at the **A>**.
4. When finished, the message "System transferred" will appear and the **A>** will return.
5. Type **ERASE B:DEMO.EXE**.
6. Type **COPY COMMAND.COM B:** at the **A>**.
7. When finished, the message "1 File(s) copied" will appear.

You are now ready to boot with the GATO disk. You can put GATO in drive A and press CTRL-ALT-DEL, or you can use the GATO disk to boot your computer after it has been turned off.

COMMAND LIST

FUNCTION KEYS

F1—All ahead flank
F2 —Up periscope
F3—All ahead full
F4 —Down periscope
F5—All ahead ⅔
F6 —Radar
F7—All ahead ⅓
F8 —Fire torpedo
F9—All stop
F10—All back (Reverse)

NUMERIC KEYPAD

∧ —Surface
∨ —Dive
< —Left full rudder
> —Right full rudder
5 —Center rudder and dive planes (rudder amidships)

OTHER KEYS

TAB—Game control parameters
ESC—(Escape): End game and save Captain's Log

LETTER COMMANDS

D—Diesel power
E—Electric power
F—Forward view periscope
P—Port view periscope (left)
S—Starboard view periscope (right)
A—Aft view periscope (backward)
T—Torpedo doors (open/close)
R—Reset (clear) radar screen (called only in radar)
R—Damage report (sub's damage)
L—Captain's Log
C—Chart of patrol area
Q—Quadrant of operations chart
M—Mission assignment message

INTRODUCTION

GATO is a real-time simulation of a World War II attack submarine. Dynamic control is maintained through optimized trigonometric coordinate transformations. All objects (ships, islands, torpedoes) are tracked simultaneously with an accuracy greater than one ten-thousandth of a unit in an area of 500 million square units.

Three-dimensional object perspective provides depth of field and realistic offensive and evasive ship movement. The enemy may evade and flee — or attack the sub — if you are detected.

Each mission begins with a coded radio message assigning your objective — an enemy convoy or fleet to intercept, the position of friendly forces needing resupply or rescue, or a coastal position for landing a spy or commando unit.

Then, you are somewhere in your patrol area in the Pacific — and you are on your own! The success of your mission, and the safety of your submarine and its crew, are in your hands.

You will navigate the submarine in a patrol area divided into 20 quadrants, some of which contain islands, as shown on your Patrol Area Chart and Quadrant Chart screens. Your primary strategic objective is to efficiently complete as many missions as possible with the supplies you carry on each patrol. You may choose to receive your next mission assignment message at any time.

You may set the level of technical difficulty (with the game control parameters), and chance will play some small part at critical moments. But the main factor for success is the captain's skill operating and navigating his submarine to achieve mission objectives, using radar, charts, and all the other realistic GATO-class sub capabilities. You learn and use the strategic, tactical, and operational skills of the GATO-class submarine captain to win.

Your record of enemy tonnage sunk is automatically entered in the Captain's Log and can be saved for future games. It all goes into your efficiency rating at COMSUBPAC— Commander Submarine Force Pacific Fleet —if you return from your mission...

OPERATING INFORMATION

1. Keyboard.

Before starting the game, set the Caps Lock key so that all letters are capitals, and set the Num Lock key to enable the numeric keypad to print numbers. You only need to press a key once to enter a command. *Repeatedly pressing a key only slows down operations.* For example, pressing the numeric keypad right-arrow once gives you right rudder, which is held until you enter the command to center the rudder (key 5). (Note: if key 5 should fail, press Num Lock to enable it.)

2. Screens.

The GATO title screens are followed by your first mission assignment message. When you press any key to continue after receiving the message, the main game screen appears, and the action begins in your patrol area.

The main screen shows the submarine instrument panel, with the view from the bridge or through the periscope above it. (Crosshairs only appear when the periscope is up.)

The instrument panel displays:

DEPTH: down to 399 feet, as measured from the sub's deck. The gauge stops beyond this depth.
SPEED: in the range of 0 to 20 nautical miles per hour (knots).
HEADING: present course in degrees (magnetic compass bearing). The sub's direction is due north at a heading of 0 degrees, due east at 90, due south at 180, and due west at 270.
FUEL: remaining diesel fuel in tons. A red light to the right shows when the fuel level is critically low.
BATT: current charge of batteries for electric motors. A red light on the right blinks when the battery charge is dangerously low.
CHARGING: a red light indicates the batteries are charging.
O2: remaining air (breathing oxygen), which is used at a constant

rate when the sub is below 20 feet. A triangular shaped pointer slides up and down to show the amount of air in the tanks.
TORPEDOES: indicates the number of torpedoes remaining. A circular red light indicates the outer torpedo doors are open. Square red lights to the right show which torpedo tubes (1-4) are ready to be fired.
POWER: shows current mode of propulsion, electric or diesel, or diesel engines and electric motors off.
DAMAGE: a red light indicates the submarine has sustained damage. When you sustain new damage a beep will sound. Press the "R" key for a damage report.
SCOPE: an arrow in this circle represents the direction in which the periscope is pointing (up-arrow shows you are looking forward, down-arrow shows aft, etc.)

You may display any of 7 other screens (including a new mission assignment message), as described below.

3. Submarine Operation.

The submarine itself is run with the controls described below. See the command list on page 3 for a summary.

Speed:
Function keys F1, F3, F5, and F7 set forward speed. F9 stops the engines or motors. Your actual speed depends upon whether you are using diesel or electric power, as well as damage conditions, drag, etc. F10 reverses the engines.

Engines:
You may switch between electric and diesel power by pressing the "E" and "D" keys. You have a much greater range and speed while using diesel power, but you cannot run the diesel engines at a depth below 20 feet. If you don't switch to electric power when diving below 20 feet, power goes off. If that happens, turn on the electric motors, press a speed key, and center the diving planes.
With each increase in speed, especially when submerged under electric power, an even greater increase in drag occurs and

battery or fuel consumption increases dramatically. (Silent running underwater is possible only at ⅓ speed, with low noise at ⅔ speed).

Direction and Depth:
Use the numeric-keypad arrows to turn, dive, and surface. The center key (key 5) centers your rudder and dive planes. The rate of turn is related to the submarine's speed — higher speed gives a faster turn rate. A slight negative buoyancy occurs when the sub is below 20 feet and not moving. If your speed is zero the diving planes cannot control depth, so you must maintain some movement to avoid sinking.

Periscope:
The F2 and F4 keys send the periscope up and down respectively. When the scope is up a crosshair appears in the middle of the screen. Periscope depth is between 20 and 45 feet. You may look in the different directions, forward, port (left), starboard (right), and aft (backward), by typing the first letter of each of these directions. (The scope view is 90 degrees wide, and each command turns the scope by 90 degrees.)

Torpedoes:
Before firing a torpedo (which is done with the F8 key) you must open the outside torpedo doors by pressing the "T" key. A round red light indicates the doors are open. (Your speed will then diminish slightly due to an increase in drag.) To close the doors press the "T" key again.
You begin with a total supply of 24 torpedoes. After each torpedo is fired the crew in the torpedo room begins to reload the tube. A numbered red light indicates when each of the 4 forward tubes is loaded. Torpedoes travel at a speed of 60 knots and can take several seconds to reach the target, so you must aim ahead of moving ships at long range — and, of course, the periscope must be turned forward. The vertical crosshair is aligned on the target by using left or right rudder. (The horizontal crosshair never moves. It is used for range estimates.)

At low difficulty levels you will usually sink the enemy ship with one torpedo hit, if not, his speed and maneuverability will be reduced.

Oxygen:
The oxygen supply is used at depths below 20 feet. When you surface and turn on the diesel engines, the air compressor starts automatically and refills the tanks within a few minutes.

Damage Report:
The sub's damage can be checked by pressing the "R" key (Report). The affected area will be highlighted in red on the sub diagram and a trouble light will appear next to the name of the damaged area on a checklist.
There are certain areas which are more critical, such as the control room or the bridge. Damaged submarine functions are crippled or rendered useless. When heavy damage accumulates, chances of survival are slim, and you should return to a subtender for repairs. (Program execution pauses with the damage report screen.)

4. Navigation.

Navigation and game control are done with the following functions.

Radar:
Radar (the F6 key) shows the relative angle and range from the sub to other objects such as ships and islands. Ships are tracked as dots which move across the radar screen, and islands are displayed as circles. The top of the screen shows what is in front of you, what is on the right of the screen is to the right of the sub, and so on. The sub's radar has a range approximately 10 percent larger than that of visual sighting from the conning tower or periscope. It is positioned atop its own mounting tube and may therefore be used like the periscope, with up and down

positions, to a maximum depth of 45 feet.
To clear the radar scope press the "R" key. Press the F6 key again, or any unused key, to return to the main program. (You may not fire torpedoes, dive, or surface while using radar.)
Remember, both you and the other ships may be moving.

Chart of Patrol Area:
The patrol area chart (the "C" key) displays your position (in green dots) and traces your present course within the entire patrol area (the game world). It is most useful to see which quadrant you are in and how deep you are into enemy territory, as well as island positions and general patrol area geography. The subtender (in green) and enemy ship traces (in red) are also displayed at game difficulty levels less than 3. Press "C" again to clear your trace. Press any unused key to return to the main screen.

Quadrant of Operations:
The quadrant chart (the "Q" key) traces your position and course in the quadrant where you are currently located. (Allow at least ten points to be plotted if you want an accurate course trace.) Subtender and enemy positions are shown at a game difficulty level of 5 or lower. The position of any island is also shown. Shoals and reefs are indicated by a dotted red line. The chart changes automatically when the sub moves from one quadrant to another . Press "Q" again to clear your trace. Press any unused key to return to the main screen.

Mission Assignment Messages:
Pressing the "M" key brings a new mission assignment message. This is normally done when your current mission is complete, but you may call for a new mission at any time. The patrol area situation will change accordingly.
Messages are preceded by the level of classification, and the Date Time Group (DTG). This DTG gives the day of the month and Zulu time (Greenwich mean time).
Note: The enemy may break Allied code at some point. Some

messages may be enemy fakes designed to trap you. These message types increase with the game difficulty setting. You must use your experience, judgment, and knowledge of the patrol area situation in deciding how to react to these messages. The general principles of strategy and tactics will be your guide.

Islands:
Take care when approaching islands. If you get too close you may run aground on a shoal. In that event, you will drift free on the tide in a short time. Reverse engines to back away from the island before going forward on a new course.

Damage repair and resupply:
When you have accumulated significant damage or are low on supplies, you should return to the allied subtender, which cruises among the four allied-controlled quadrants (1, 2, 6, and 7). When you approach, the subtender's speed will decrease to about 3 knots. Once you are close enough, and at a parallel course and speed, damage will be repaired, torpedoes replaced, and fuel tanks refilled.
Do not shoot your own subtender! You will have no way of resupply, plus you will be in big trouble with COMSUBPAC !!!

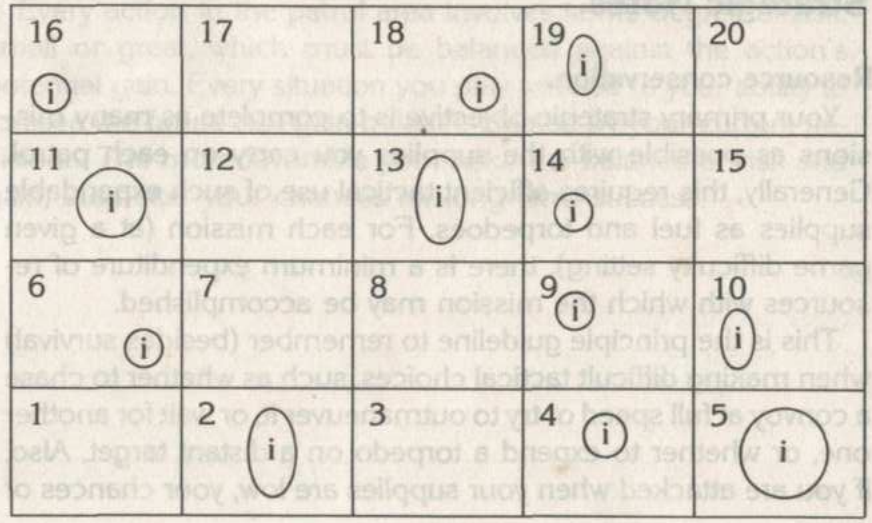
Captain's Log:
Use the "L" key to display the Captain's Log — the record of each ship sunk and the total tonnage accumulated, for all the sub's missions since the log was last cleared. The Log is not reset when you begin the game, so you may continue to play where you last left off (unless you were sunk). You may clear the Log with the game control screen as described below. The Log is also cleared when the list of known enemy ships is exhausted. Press any unused key to return to the main routine. (The program pauses when you display the Log)

Game Control Parameters:
You may set different modes of play by changing the parameters (using the tab key), as follows:

Difficulty (0-9, 0: easiest, 9: most difficult); Sound (1 for sound, 0 for no sound); Time of Day (1 for daytime, 0 for nighttime); Reset Captain's Log (clears the Log);
Press the return key to resume game play.
Note: The program pauses when this screen is displayed. Ship traces show on quadrant charts at difficulty level 5 or lower, and on the patrol area chart only at the levels less than 3. At levels above 7 the morse code message is not printed and you can only listen (it helps if you know morse code).

5. Beginning the Game.

When you have received your first mission assignment and have pressed a key to begin, you will see the main screen with the instruments indicating full supplies and zero depth, speed, and bearing. You will be in a friendly quadrant, usually quadrant 7, which you can verify by pressing the "C" key to view the patrol area chart. The sub and (at difficulty levels less than 3) the subtender will be plotted as green dots on the chart. Enemy ships will be plotted in red (at level 2 or lower).



The patrol area is divided into 20 quadrants. Of these, 1, 2, 6, and 7 are occupied by allied forces. Quadrants 11 and 16 are relatively neutral. Enemy ships are not often found there. The rest of the area is dominated by the enemy. Your missions are to infiltrate this region to cut off enemy supply lines, rescue and resupply allied forces, and perform reconnaissance and espionage support.

Use the chart to determine the course necessary to reach your objective, and use the main screen display to monitor your use of the controls as you set the sub in motion on the proper course. Use the charts to track your progress until the objective is in view.

You may wish to stop here and explore the variety of situations in GATO before reading the following section on strategy and tactics. If so, relax — you can always clear the Captain's Log and start over!

STRATEGY and TACTICS

This section discusses strategic and tactical methods which will aid in survival and the best performance of your missions. It also contains additional useful facts about the sub's operation.

Strategic Notes.

Resource conservation.

Your primary strategic objective is to complete as many missions as possible with the supplies you carry on each patrol. Generally, this requires efficient tactical use of such expendable supplies as fuel and torpedoes. For each mission (at a given game difficulty setting), there is a minimum expenditure of resources with which the mission may be accomplished.

This is the principle guideline to remember (besides survival) when making difficult tactical choices, such as whether to chase a convoy at full speed or try to outmaneuver it, or wait for another one, or whether to expend a torpedo on a distant target. Also, if you are attacked when your supplies are low, your chances of survival are accordingly lower, especially if you are a long way from friendly waters.

Your ability to accomplish this primary strategic objective is the best overall measure of skill and success in the game.

Target selection.

You will need good judgment in selecting targets according to the resource conservation principle. For example, expending a torpedo on a patrol boat early in your patrol may mean not being able to sink a tanker later. But if you are heading for home with one torpedo left and your fuel is low, and you encounter an enemy destroyer, a successful shot with that torpedo may mean your survival.

Other target selection problems are more subtle. A choice between a destroyer and a freighter at a difficult game level may involve how many torpedoes you think it will take to sink each ship, whether you think you can risk firing again after reloading, etc.

These targeting choices will become easier as you gain experience and skill in developing your patrol strategies.

Balancing risk and gain.

Every action in the patrol area involves some degree of risk, small or great, which must be balanced against the action's potential gain. Every situation you play will add to your ability to foresee the future risk-gain balance created by your current decisions. The more favorable you make the balance of risk and gain, the better your chances for long-term success.

Notes on Operations and Tactics.

Reconnaissance.

Radar:
Radar is most useful for reconnaissance of the area just beyond the visual horizon, for early warning and target tracking at minimum risk, and for navigation at night or in dense weather. (It is also more easily detected by the enemy than the periscope.)

Periscope and bridge:
When the sub is surfaced, the bridge view is the same as the periscope view and is controlled the same way. When the enemy may be in your area it is important to continually check the view around the entire sub (360 degrees) as long as any part of the sub or periscope is exposed above the surface.

Any time the radar or the periscope is above the surface when enemy ships are in view, the risk of detection increases with time and speed. The standard procedure to minimize this risk is to keep the scope up (ideally at a depth of 40 to 45 feet) only long enough to observe the positions and headings of the ships around you or to fire torpedoes.

If you pass under another ship, remember that a safe depth must allow for the 20 or 25 feet which the downed periscope and radar project above the top deck, plus the bottom depth (draft) of the surface ship. If your periscope/radar assembly is damaged in enemy waters, you have serious trouble.

Fleet and convoy formations:
Your radar and periscope are your most important tools in one of the most critical attack procedures — discovering the formation and composition of enemy fleets and convoys before you attack them. The tactical plan for an attack should be based on this reconnaissance.

Efficient sub attack patterns.

The main factors in planning an attack pattern are the positions of the primary targets (gain) and the deployment of enemy ships and patrol boats. You will usually (but not necessarily always) want to choose a position for your initial attack that will allow you to fire at the greatest number of primary targets in the shortest possible time, while keeping as far as possible from the threat of enemy warcraft.

Suppose, for instance, that your reconnaissance of a convoy shows a randomly dispersed group of three large freighters and two smaller ones, with a destroyer escort on the right flank and patrol boats leading and trailing toward the left flank. Your best position would be off the convoy's left flank, forward of center.

You might then adjust your position or timing to give the best chance of hitting all three large freighters with one spread of torpedoes launched in fast sequence, so as to strike each ship as nearly as possible at the same time.

You should also weigh the risk and difficulty of getting in close enough for a sure shot. The probability of a hit decreases with the distance the torpedo travels.

Enemy anti-sub tactics and sub defense.

Once you torpedo a ship, or if you are sighted by the enemy under other circumstances, it is almost certain that nearby warships will be sent to seek and destroy you. If there are nearby warships you can hear them trying to detect you with their sonar. At that point you have essentially two tactical choices: 1) destroy the enemy ships attacking you, or 2) run as silently and deeply as possible until they have no chance of spotting you when you surface — as you eventually must.

Your chances of being detected in any situation depend mostly on your depth, distance from the enemy, whether it is day or night, and somewhat on luck. You must anticipate the following hazards:

Enemy warships:
PATROL BOATS cruise near the islands and are notified when

a submarine is sighted. They may also escort a convoy briefly as it passes their island base. They are faster and more maneuverable than the sub, so they are hard to hit and impossible to evade on the surface. They carry deck guns, and torpedoes and depth charges in small quantities. Generally they are best avoided, although you might be able to sink one by surprise, or escape in deep water.

The usual attack procedure for patrol boats is to come straight in fast with a torpedo run on the sub's flank, or to make one or two depth charge runs over an area where a sub has just dived. The standard sub defense is a crash dive with a hard turn away from the attacking vessel.

DESTROYERS are essentially your most dangerous adversary. One hit from their guns or depth charges is usually fatal, they carry a large ammunition supply which allows them to sustain a long engagement against you, and they usually have sonar which can only be evaded with very cunning tactics. Yet, they are nearly as maneuverable as the sub, are faster, and have longer range.

If a destroyer attacks you while you are on the surface or in shallow water, it will use guns with up to twice the range of your torpedoes. (There are different size destroyers with varying capabilities.) If you don't maneuver effectively or dive, it will almost always hit you after the first salvo. Generally, unless you are much smarter or luckier than the destroyer captain, your only chance to sink him will be with a head-on bow shot, while under fire.

Once you dive, he will attempt to track you with his sonar and with acoustic gear which picks up propeller noise, internal sub noise, etc. You must attempt to evade him by running quietly and maneuvering away from his course. If he finds you, he will begin depth charge runs based on estimates of your course,

speed and depth. You must either run deep and play dead, or maneuver through the depth charge patterns in three dimensions until you can escape.

Depth charges:
These are set to explode at a certain depth, which is set before they are dropped. This means the captain of the enemy ship must bracket your position in three dimensions, instead of two as with surface gunnery. This is your advantage in evasive maneuvering. A charge must explode fairly close to the sub's hull to do fatal damage.

Risk control.

The following methods of controlling risk are recommended for success in your patrols and your record in the Captain's Log. 1) Stay within your resources, especially with fuel and battery reserves. 2) Give yourself the necessary time and distance to escape after an attack on the enemy. 3) When in doubt, dive. 4) When under enemy attack by depth charge, either go dead in deep water or keep maneuvering. When escaping enemy search, run silent, run deep. 5) Avoid coastal waters and shallow areas whenever possible. These are the worst possible places to be caught.

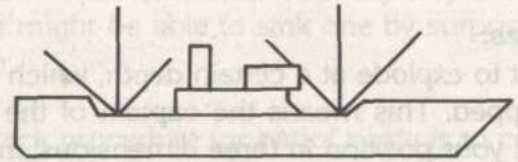
. Remember, an accumulation of damage works against you with time, even if it is initially far from fatal. When assessing damage effects and risks, you must evaluate your entire situation including time, distance from home, possible future attacks, etc.

Rescue and covert missions.

These missions are accomplished by navigating to the position specified by the assignment message and stopping on the surface for the necessary time. For certain missions, you must arrive within a certain time and accomplish other tasks as well, before the mission can be completed.

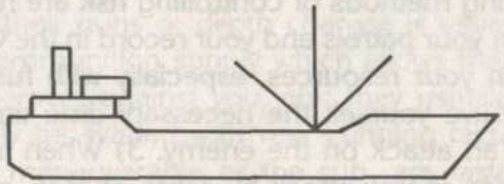
SHIP TYPES

ALLIED CRAFT

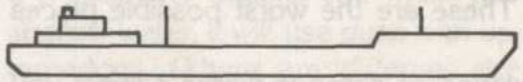


Subtender

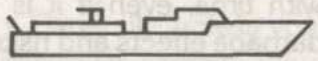
ENEMY CRAFT



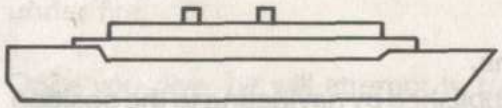
Freighter



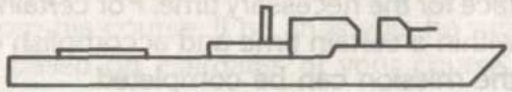
Tanker



Patrol Boat



Troop Carrier



Destroyer

RAPID SUBMARINE DEPLOYMENT (RSD)
(or, getting to there from here quickly)

This function is primarily used when your sub is damaged and you want to get repaired and back into action, quickly. (NOTE: This function is not used by the "True Simulationists," who have a perfectionist's patience and are easily identified ... when operating GATO they're the ones with wet shoes and water-logged fingers.)

You must be looking at the Chart screen (press **C**) in order to make this function work. Once in the Chart, press **Z**. At the top of the screen a message will appear asking you to enter the password, type in **PAED** and press **return**. You will now be asked to enter coordinates **X,Y**. For an explanation of how to plot these coordinates see the instructions below.

```
20000 - |
        Y   (USE THE FIGURE FROM PAGE 11 IN THE MANUAL)
        |
      0 — ------| ------| -X---| ------| ------|
            5000  10000  15000  20000  25000
```

The **X** coordinate is represented by the 5 Quadrants illustrated at the bottom of the Chart and numbered 0 to 25000 (from left to right), each quadrant having a value of 5000. The **Y** coordinate is represented by the 4 Quadrants illustrated at the left of the Chart and numbered 0 to 20000 (from bottom to top), again, each quadrant having a value of 5000.

You do not have to tell the system where you are, just where you want to be. For example, if you are in Quadrant 1 (as seen from the Chart screen), and want to get to the upper right hand corner of Quadrant 8 ... press **Z**, enter the password **PAED** and press **return**, enter the **X** coordinate 14500, and the **Y** coordinate 9050 (typed in as: **14500,9050**), and press **return**. The Chart will now show you located in your new position.

You may choose any number* from 10 to 25000 for **X**, and any number from 10 to 20000 for **Y**. **(*The PCjr color monitor will not recognize even numbers - enter only *odd* numbers.)** Numbers higher than those specified for **X** and **Y** will not be accepted. It will take some time to orient yourself on the Chart, so keep experimenting.

Oh yes ... if you try to use the RSD function to escape an enemy who has spotted you with sonar ... forget it! You got yourself into that mess, you'll have to figure a way out of it ... the hard way.

ADDENDUM TO THE IBM GATO MANUAL

In order to play GATO, you will either have to install the game on a hard drive or else make a backup copy. Before you read the addendum, you should look at the READ.ME file on the master GATO disk. With the master GATO disk in drive A, type **TYPE READ.ME** at the **A>**. This addendum gives more detailed instructions on how to install GATO on a hard drive and how to make backup copies.

Our sincere apologies for the loose pages to the manual. We have removed the copy protection in order to allow hard drive installation and archival backups. We have also added two new Game Control Parameters in an attempt to make GATO more playable for individuals with systems other than the IBM PC.

Hard Drive Installation Procedures

Most of the instructions for installing are right on the disk. You will need to know how to make a directory on the hard drive for GATO. Refer to your DOS user's manual for instructions on **MKDIR** and **CHDIR**.

To install GATO onto your hard drive:

1. Boot DOS from the hard drive, entering the date and time as prompted.
2. Create a subdirectory for GATO on the hard drive, using **MKDIR**.
   For example: **MKDIR\GATO**.
3. Change to the newly created subdirectory, using **CHDIR**.
   For example: **CHDIR\GATO**.
4. Insert the GATO master disk in the A drive.
5. Change to drive A by typing **A:** at the **C>**.
6. At the **A>**, type in **INSTALL**.
7. Following the instructions onscreen, enter the destination drive.
8. The message "Now working, please wait" will appear while the INSTALL routine copies the files to the subdirectory.
9. The message "Gato is now installed on drive *X*:" will appear after the INSTALL routine is finished, and your **A>** will return.

Store the master GATO disk in a safe place, and play directly from your hard drive. To run GATO, go into the subdirectory and type **GATO**.

Floppy Backup Procedures

The unprotected GATO disks do not have notches in them so it will be necessary to make a backup copy and use it as the game disk. Otherwise, your game will crash when you sink an enemy ship. You must use the DISKCOPY command from DOS or the INSTALL routine on the GATO disk since the COPY *.* command will not work.

Using DISKCOPY for a one-drive system:

1. Insert your DOS disk into the drive, and turn on the computer.
2. Type **DISKCOPY B:** at the **A>**.
3. Following the prompts onscreen, insert the master GATO disk as the "Source Disk" and a blank disk as the "Target Disk."
4. Continue to swap disks as directed until all of the files are copied and the **A>** returns to the screen.
5. Store the master GATO disk in a safe place, and play using the backup.

Using DISKCOPY for a two-drive system:

1. Insert your DOS disk into drive A, and turn on the computer.
2. Type **DISKCOPY A: B:** at the **A>**.
3. Put the master GATO disk in drive A and a blank disk in drive B.
4. Hit any key to start the copying.
5. The copying will continue until the **A>** returns to the screen.
6. Store the master GATO disk in a safe place, and play using the backup.

Note: The INSTALL routine is used primarily for installing GATO onto hard drives, but it is listed here as an alternative to DISKCOPY.

Using INSTALL for a two-drive system:

1. Insert your DOS disk into the drive, and turn on the computer.
2. With the master GATO disk in drive A and a blank disk in drive B, type **INSTALL** at the **A>**.
3. Enter **B** when the INSTALL routine asks for the destination drive .
4. The message "Now working, please wait" will appear" as the INSTALL routine copies the files onto the blank disk, and the **A>** will return.
5. Store the master GATO disk in a safe place, and play using the backup.

COPYING THE CAPTAIN'S LOG

Once you have made a complete floppy backup, this option is no longer necessary.

Game Control Parameters

(See pages 10 and 11 of the IBM GATO manual.)

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[1]	DIFFICULTY LEVEL	ø
[2]	RUN SPEED	ø
[3]	MAP BACKGROUND	ø
[4]	TIME OF DAY	1
[5]	PC JUNIOR	ø
[6]	SOUND	1
[7]	RESET CAPTAIN'S LOG	

NUMBER OF ITEM TO CHANGE __

The item number appears at the left of the selection. The default parameters (settings which appear when you boot up GATO) are shown at the right.

1. Difficulty level ranges from ø to 9. ø is the easiest level; 9 is the most difficult. For the PCjr, start at level 2 as this will speed up play to that of the IBM PC.

2 The Run Speed parameter is used for computers which process at speeds faster than the IBM PC™. ø runs the simulation at speeds equivalent to the IBM PC's (8088) processor. 1.0 runs the simulation at speeds equal to the Compaq Deskpro™ and the AT&T™ (8086). 2.5 is the appropriate speed for the PC AT™ (80286). You may choose to run GATO at speeds slower than 2.5.

3. Map Background changes the background color on the Chart, Quadrant, and Captain's Log to black.

4. The Time of Day may be set to day (1) or night (ø).

5. The PC junior setting changes the color of the Allied ships on the Chart screen from green to white for better visibility.

6. Sound is OFF when the parameter is set to ø. The default is 1 or ON.

7. To reset the Captain's Log, choose number 7. ***Note:*** Your log will be completely cleared and reset to ø.

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